



碧云天生物技术/Beyotime Biotechnology  
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## Recombinant Rat BD-3

产品编号	产品名称	包装
P6434-5μg	Recombinant Rat BD-3	5μg
P6434-100μg	Recombinant Rat BD-3	100μg
P6434-500μg	Recombinant Rat BD-3	500μg

### 产品简介:

Species	Gene ID	Accession	Source	Length	MW	Tag
Rat	641623	Q32ZI4	<i>E. coli</i>	41aa	4.5kDa	—

About this protein	
Name	Recombinant Rat BD-3 (Recombinant Rat $\beta$ -defensin 3; rRtBD-3); 重组大鼠 $\beta$ -防御素3
Synonyms	BD14; BD3; DEFB103A; DEFB103B; DEFB3; HBD-3; BD3; BD-3; beta-defensin 103; Beta-defensin 3; DEFB103; DEFB-3; DEFB3DEFB103A; Defensin, beta 103; defensin, beta 103B; Defensin-like protein; hBD-3; HBD3HBP3
Purity	>95% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. Measured by its antimicrobial activity against <i>E. coli</i> . The ED50 for this effect is typically 4-20μg/ml.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2μM filtered concentrated solution in PBS, pH7.4.
Endotoxin	Less than 1EU/μg of rRtBD-3 as determined by LAL method.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0mg/ml. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.
Category	Cytokine
Background	Defensins (alpha and beta) are cationic peptides with antimicrobial activity against Gram-negative and Gram-positive bacteria, fungi, and enveloped viruses. They are 2-6kDa proteins and take important roles in innate immune system. On the basis of their size and pattern of disulfide bonding, mammalian defensins are classified into alpha, beta and theta categories. $\beta$ -Defensins are expressed on some leukocytes and at epithelial surfaces. They contain a six-cysteine motif that forms three intra-molecular disulfide bonds. Because $\beta$ -defensins are cationic peptides, they can therefore interact with the membrane of invading microbes, which are negative due to lipopolysaccharides (LPS) and lipoteichoic acid (LTA) found in the cell membrane. Especially, they have higher affinity to the binding site compared to $\text{Ca}^{2+}$ and $\text{Mg}^{2+}$ ions. Furthermore, they can affect the stability of the membrane. Additionally, they are not only have the ability to strengthen the innate immune system but can also enhance the adaptive immune system by chemotaxis of monocytes, T-lymphocytes, dendritic cells and mast cells to the infection site.
Amino Acid Sequence	KKVYNAVSCM TNGGICWLKC SGTFREIGSC GTRQLKCKCK K

### 包装清单:

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—	说明书	1份
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### 保存条件：

-20°C或更低温度保存，至少一年有效。由于蛋白的每次冻融均会引起部分失活，所以首次配制成相应浓度的储存液后(请根据产品简介中Reconstitution一栏的信息配制储存液)，须分装后-20°C或更低温度冻存，以避免反复冻融。

### 注意事项：

- 由于有些塑料管壁对某些蛋白有较强的吸附作用，溶液中的蛋白很容易粘附在管壁上，并且粘附后的蛋白很难与管壁分离。而载体蛋白(Carrier protein, 如0.1% BSA等)的主要作用是预先封闭塑料管壁上的蛋白结合位点，使细胞因子或重组蛋白不会粘附于管壁。所以一定要使用产品简介中Reconstitution一栏的信息配制储存液。
- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

### 使用说明：

1. 收到产品后请立即按照说明书推荐的条件保存。除非特别注明，碧云天相关产品均为冻干粉，由于微量的蛋白在冻干过程中沉积在管内，形成很薄或不可见的蛋白层，所以在打开管盖前，我们建议在离心机中约8,000-12,000g离心10-30秒，使附着在管盖或管壁上的蛋白聚集于管底。
2. 请根据实验目的并按照产品简介中Reconstitution一栏中的信息配制储存液。大多数细胞因子或重组蛋白的冻干粉是很容易溶解的，一般用移液枪的枪头轻吹几下或者轻轻摇晃瓶子，即可使细胞因子或重组蛋白完全溶解。请勿用vortex剧烈振荡，以免蛋白变性而失活。
3. 具体的最佳工作浓度请自行参考相关文献，或者根据实验目的，以及特定细胞和动物，通过实验进行摸索和优化。

Version 2023.12.14